

What is claimed is:

1. A method for regulating the transmission ratio of a continuously variable transmission, in particular for motor vehicles, said method comprising the steps of:

5 a. providing a preliminary transmission ratio control value is a function of at least two transmission operating parameters;

b. providing a set point value for the transmission ratio of said transmission as a function of operating parameters of a power train, wherein the set point value is composed of the preliminary control value and a correction value;

10 c. deriving the correction value by comparing a measured transmission ratio with the set point transmission ratio of said transmission; and

d. updating the relationship between the transmission operating parameters and the transmission's set point correction value based upon changes that occur during transmission operation.

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2. A method in accordance with claim 1, wherein the at least two transmission operating parameters include the drive torque and the transmission ratio of the transmission.

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3. A method in accordance with claim 1, wherein the preliminary control value is a function of a transmission rotational speed.

4. A method in accordance with claim 1, including the step of detecting the rate of change of the set point value.

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5. A method in accordance with claim 1, including the step of generating a display when a change in the preliminary control value exceeds a predetermined limit value.

5 6. A method in accordance with claim 1, including the steps of:  
a. providing a preliminary control data field;  
b. changing control algorithms of the transmission as a function of changes in the preliminary control data field.

10 7. A method in accordance with claim 1, including the step of detecting changes in transmission behavior when there are changes in the set point value.

8. Apparatus for regulating the transmission ratio of a continuously variable transmission, in particular for motor vehicles, said apparatus comprising:

15 a. sensors for detecting operational transmission parameters;  
b. an electronic control unit including a microprocessor and at least one memory in which operating parameters associated with reference transmission ratios are stored, wherein the electronic control unit further includes a preliminary control device in which a preliminary control value is determined as a function of at  
20 least one of the transmission operating parameters;  
c. a regulator for comparing a measured transmission ratio of the transmission with a reference transmission ratio and for deriving therefrom a control value;  
d. an adjusting device that receives the preliminary control value and the  
25 regulation value as the set point value in order to adjust the transmission;  
e. wherein the preliminary control value is stored in the preliminary control device as a function of at least two transmission operating parameters and in that

an adjustment system is provided which changes the preliminary control value so that the measured transmission ratio coincides with the reference transmission ratio when the control variable is at least approximately zero.

5           9.     Apparatus in accordance with claim 8, including a monitor for generating predetermined functions based upon changes in the preliminary control value.

10           10.    Apparatus in accordance with claim 9, wherein the monitor detects changes in the transmission ratio of the transmission as a function of changes in the controlled variable, and wherein it triggers predetermined functions in relation to changes in said changes.